

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Kenneth L. Arrington, et al.

Serial No. 10/582,826

Filed: June 14, 2006

For: MITOTIC KINESIN INHIBITORS

Art Unit: To be determinedExaminer: To be determined

Commissioner for Patents  
 P.O. Box 1450  
 Alexandria, Virginia 22313-1450

**INFORMATION DISCLOSURE STATEMENT  
 UNDER 37 CFR 1.97**

Sir:

1. In compliance with 37 C.F.R. 1.97, submitted on the attached form herewith is a list of patents, publications or other information which are requested to be made of record in this application. This Information Disclosure Statement is not an admission that any patent, publication or other information referred to herein is "prior art" for this invention. In accordance with 37 C.F.R. 1.97(h), the filing of this Information Disclosure Statement shall not be construed to be an admission that the information cited in the Statement is, or is considered to be, material to patentability as defined in 37 C.F.R. 1.56(b).
2. In accordance with 37 C.F.R. 1.97(g), the filing of this Information Disclosure Statement shall not be construed to mean that a search has been made.
3. Applicants respectfully request that the Examiner initial the attached form after reviewing the pertinence of each reference.
4. Pursuant to 37 C.F.R. 1.98 (a)(2)(ii), copies of each cited U.S. patent and each U.S. patent application publication are not enclosed herewith.

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450, on the date appearing below.

MERCK &amp; CO., INC.

A handwritten signature in black ink, appearing to read "J. M. [Signature]". It is positioned above a horizontal line.

Date 2/15/07

## INFORMATION DISCLOSURE STATEMENT

5. Pursuant to 37 C.F.R. 1.98(d), copies of references listed on the attached form that were submitted to or cited by the Office in a related application upon which the instant application relies for an earlier filing date under 35 U.S.C. 120 are not enclosed. Related application(s) in which references were submitted to or cited by the Office are as follows:

<b>RELATED APPLICATION</b>		
<b>U. S. SERIAL NUMBER</b>	<b>FILING DATE</b>	<b>MERCK CASE</b>

If this is inconvenient, additional copies will be submitted upon request.

6. In accordance with 37 C.F.R. 1.97, (check one)

- the attached information is filed within three months of the filing date of the captioned case.
- the attached information is filed more than three months after the filing date but prior to the mailing of a first Office Action on the merits.
- the attached information is filed before the mailing of a first Office action after the filing of a request for continued examination under §1.114.
- the attached information is being filed more than three months after the filing date and after the mailing of a first Office Action on the merits, but before the mailing date of a Final Action, Notice of Allowance, or an action that otherwise closes prosecution in the application. The enclosed authorization is therefore given to charge Deposit Account No. 13-2755 for the fee required under 37 C.F.R. 1.17(p).
- each item of information contained in this Information Disclosure Statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Statement.
- each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart application *and this communication was not received by any individual designated in §1.56(c) more than thirty days prior to the filing of the information disclosure statement.*
- no item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, was known to any individual designated under 37 C.F.R. 1.56(c) more than three months prior to the filing of this Statement.

Respectfully submitted,



By: David A. Muthard

Attorney \_\_\_\_\_ For Applicant(s)

Reg. No. 35,297

MERCK & CO., INC.

Patent Dept., RY60-30

P.O. Box 2000

Rahway, N.J. 07065-0907

(732)594-3903

Date: February 15, 2007



PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Kenneth L. Arrington, et al.

Serial No.: 10/582,826 Case No.: 21596P

Filed: June 14, 2006

For: MITOTIC KINESIN INHIBITORS

Art Unit:  
To be determined

Examiner:  
To be determined

Mail Stop: Amendment  
Commissioner of Patents  
P.O. Box 1450  
Alexandria, Virginia 22313-1450

EXPLANATION OF RELEVANCE OF NON-ENGLISH  
DOCUMENT UNDER 37 C.F.R. 1.98(a)(3)(i)

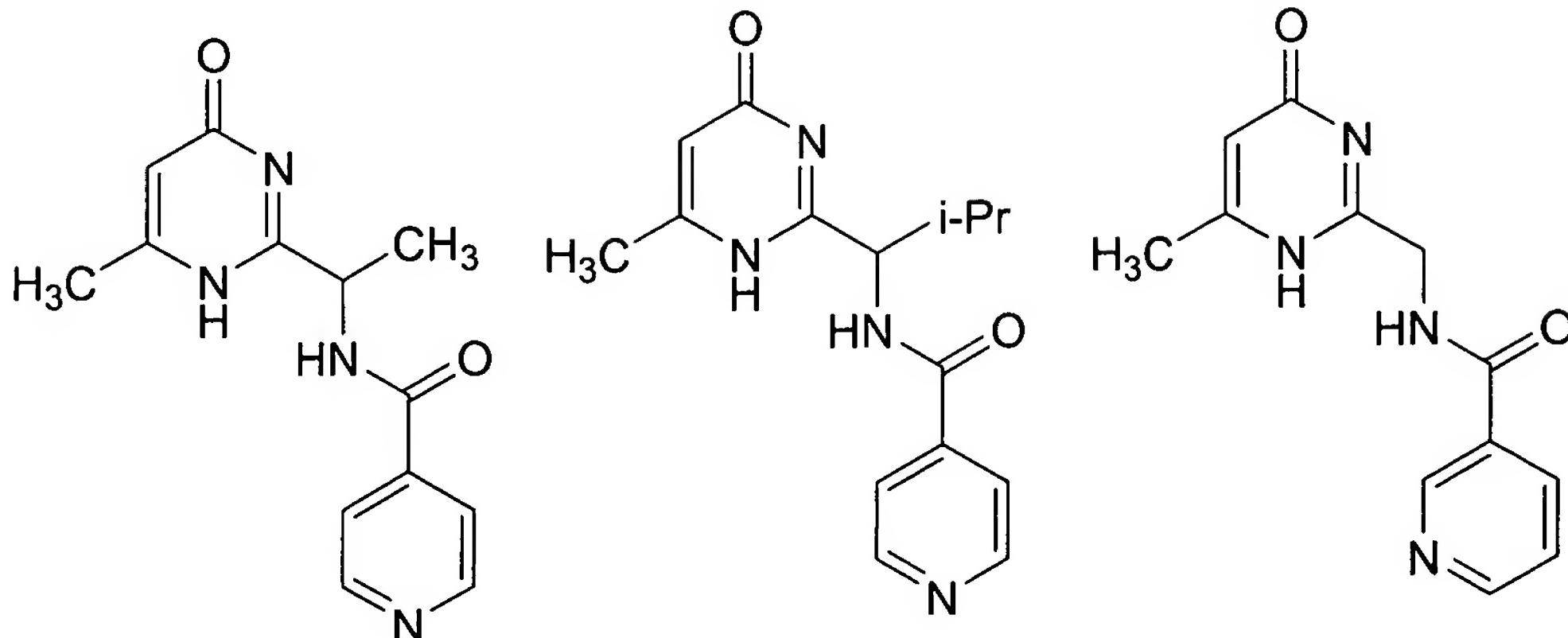
Sir:

Applicants respectfully note that one (1) of the documents listed on the USPTO 1449 form submitted herewith are not in the English language and a copy of an English translation of this document is not within the possession, custody or control of Applicants, and, to the Applicants knowledge, is not readily available. Below is a concise explanation of the relevance of this non-English document:

Japanese Patent Application No. 62-135473 discloses substituted imidazo[1,5-a] pyridine compounds that have activity as cardiotonic agents. The Japanese application also describes methods of preparation of those compounds. In particular, the Japanese patent application discloses both generally and specifically that 2-substituted-4-oxopyrimidines are useful as intermediates in the synthesis of the claimed imidazopyridines. Thus the following compounds are disclosed in the Japanese application as intermediates in the synthesis of therapeutically active compounds disclosed therein:



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Merck Case 21596P  
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The instant invention discloses certain substituted oxopyrimidines that are inhibitors of the mitotic kinesin KSP and are useful in the treatment of cancer.

CERTIFICATE OF MAILING

I HEREBY CERTIFY THAT THIS CORRESPONDENCE IS BEING DEPOSITED WITH THE UNITED STATES POSTAL SERVICE AS FIRST CLASS MAIL IN AN ENVELOPE ADDRESSED TO: COMMISSIONER FOR PATENTS, P.O. BOX 1450, ALEXANDRIA, VIRGINIA 22313-1450, ON THE DATE APPEARING BELOW.

MERCK & CO., INC.

BY:

DATE: 2/15/07

Respectfully submitted,

By:

David A. Muthard  
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Date: February 15, 2007

Substitute for form 1449A/PTO		<b>COMPLETE IF KNOWN</b>	
<b>INFORMATION DISCLOSURE</b>		<b>Application Number</b>	10/582,826
<b>O I P S STATEMENT BY APPLICANT</b>		<b>Filing Date</b>	June 14, 2006
FEB 20 2007 <i>(use as many sheets as necessary)</i>		<b>First Named Inventor</b>	Kenneth L. Arrington
		<b>Group Art Unit</b>	To be determined
		<b>Examiner Name</b>	To be determined
1	of	3	Attorney Docket Number
21596P			

FOREIGN PATENT DOCUMENTS					
Examiner Initials*	Cite No.	Foreign Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY
		Office	Number	Kind Code (if known)	
		PCT	WO 01/30768	Cytokinetics, Inc.	05/03/2001
		PCT	WO 03/094839	Cytokinetics, Inc.	11/20/2003
		PCT	WO 2004/032879	Cytokinetics, Inc.	04/22/2004
		PCT	WO 2004/091547	Cytokinetics, Inc.	10/28/2004
		PCT	WO 03/099211	Merck & Co., Inc.	12/04/2003
		EP	0 373 891	Imperial Chemical Industries	12/12/1998
		JP	6-49070 (Eng. Trans. Att'd)	Kyorin Pharmaceutical Co., Inc.	02/22/1994
		JP	62-135473	Fujisawa Pharmaceutical Co., Inc.	06/18/1987
		PCT	WO 95/11235	The Upjohn Company	04/27/1995
		EP	0 134 928	Kyorin Pharmaceutical Co., Inc.	03/27/1985

\*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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**Substitute for form 1449A/PTO**

# **INFORMATION DISCLOSURE**

## **STATEMENT BY APPLICANT**

*(use as many sheets as necessary)*

Sheet 2 of 3

Page 1 of 1

**COMPLETE IF KNOWN**

<b>Application Number</b>	10/582,826
<b>Filing Date</b>	June 14, 2006
<b>First Named Inventor</b>	Kenneth L. Arrington
<b>Group Art Unit</b>	To be determined
<b>Examiner Name</b>	To be determined
<b>Attorney Docket Number</b>	21596P

# **U.S. PATENT DOCUMENTS**

## **FOREIGN PATENT DOCUMENTS**

**Examiner  
Signature** \_\_\_\_\_ **Date  
Considered** \_\_\_\_\_

\*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Substitute for form 1449B/PTO

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(use as many sheets as necessary)

**COMPLETE IF KNOWN**

Application Number	10/582,826
Filing Date	June 14, 2006
First Named Inventor	Kenneth L. Arrington
Group Art Unit	To be determined
Examiner Name	To be determined

Sheet 3 of 3 Attorney Docket Number 21596P

**NON PATENT LITERATURE DOCUMENTS**

Examiner Initials*	Cite No.	Include name of the author, title, date, page(s), volume-issue number(s) and place of publication.
		C.D. Cox, et al., Bioorganic & Medicinal Chem Ltrs. Vol. 15, pgs. 2041-45 (2005)
		W. Tao. Cell Cycle, Vol. 4 (11), pgs. 1495-1499 (2005)
		K.D. Chu, et al. Proc. Am. Soc. Clin. Oncol., Abstract 525, pg. 131 (2003)
		R. Sakowicz, et al., Cancer Research, Vol. 64, pgs. 3276-80 (2004)
		W. Tao, et al., Cancer Cell, Vol. 8, pgs. 49-59 (2005)
		J.C. Bennet, et al., Cecil Textbook of Medicine, 20th Ed., Vol. 1, pgs. 1004-1010 (1996)
		Haque, et al., Cell Motility and Cytoskeleton, No. 58, pgs. 10-16 (2004)
		Yildiz, et al., Trends in Cell Biology, Vol. 15(7), pgs. 112-120 (2005)
		Maliga, et al., Chem. Biol., Vol. 9(9), pgs. 989-996 (2002)
		Katou, Patent Abstracts of Japan, Vol. 007, No. 095 (1983)
		N. Katagiri, et al., Chemical and Pharmaceutical Bulletin, Vol. 31 (7), pgs. 2288-2295 (1983)
		H. Uchida, et al., Bulletin of the Chem. Soc. of Japan, Vol. 46(10) pgs. 3277-3280 (1973)

Examiner  
Signature

Date  
Considered

\*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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